

REMARKS

Claims 61-114 are pending in the application; claims 65-69, 103-106, 109-114 are withdrawn.

Rejection under 35 U.S.C. 102

Claims 61-64, 70-74, 100-102, 107, 108 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Cranston, Jr. et al. (US 2,830,631)*.

The present invention deals with a bonding machine for bonding lamellar pieces of wood, i.e., elongate wooden members, to a board. In order to do this, glue is applied to the longitudinal sides of the wooden members; the wooden members are then pressed to a board with the longitudinal sides provided with glue contacting one another. In this way, boards are produced from the elongate members of wood. These boards can have different lengths. Of course, pressing such wooden members that are shape-stable requires very high pressure.

The cited prior art reference *Cranston* has nothing in common with such a bonding machine. As disclosed in col. 1, lines 15-18, this prior art reference deals with a laminating machine for "laminating thin sheet materials, such as paper and wood veneer". In contrast to the present intention, the laminate material is applied to the top or bottom side of the sheet material while with the present invention the wood members are laterally pressed against one another. The wood members processed according to the present invention are not provided with a layer applied to the top or bottom side.

According to the cited prior art, the core strips 11 that are positioned between the bottom and top sheets 10, 12 are pressed against one another by raising the lower platen 20 against the stacked sheets and the upper platen 21. The pressing force is thus applied in a direction perpendicular to the plane of the laminate that is produced. In the case of the present intention, the wooden pieces are placed adjacent to one another with their longitudinal sides within the plane of the board to be formed and the pressing force acts onto the longitudinal sides and thus in the plane of the board.

Moreover, wood veneer, given as an example in the cited prior art reference, cannot be compared in any way to the wood members 2 of the present intention. Wood veneer is very thin sheet material that is very flexible and breaks easily. Therefore, the laminating

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process is possible only by stacking the sheets and applying pressure perpendicularly to the plane or face of the sheets. The bonding machine according to the present invention is designed for using shape-stable pieces of wood for producing, for example, parquet floors, and the aligned pieces of wood are pressed against one another in a direction perpendicular to their contacting longitudinal sides within the plane of the board and not in a direction perpendicular to the plane or face of the boards.

The pressing force for bonding the pieces of wood is provided by means of the slide 13 and not by means of the pressure members 27. These pressure members 27 have only the task of clamping the wooden pieces 2 of the board 12 during the pressing process effected by the slide 13. During the pressing process, the cylinders 16b that are connected to the pressure members 27 are switched to apply their full pressure and act in this way like a brake during the pressing process. The pressure members 27 act on the rear edge of the board 12 that is being bonded. The slide 13 acts with the adjusted pressing force on the board 12 and forces the longitudinal sides of the wooden pieces 2 of the board 12 against the braking force supplied by the cylinders 16b and the pressure members 27. The clamping unit 9 and the pressing plate 10 serve during the pressing process only as supports for the board 12. The pressing force is generated only by the slide 13. This is described in the instant specification in the paragraph bridging pages 18 and 19: the pressing of the board is carried out in that pressure is supplied by means of the slide 13 onto the board 12 **transversely** to the pressure force generated by the cylinders 16b and the pressure members 27 and acting as a braking force. Such a configuration of the gluing machine is not disclosed in the cited prior art reference.

In order to define this more clearly, claims 61 and 74 have been amended by defining that the wood pieces 2 are pressed transversely to their longitudinal direction against one another with their longitudinal sides in order to produce the board 12. The added feature is neither anticipated nor obvious in view of the prior art reference *Cranston*.

The Examiner states that the prior art reference discloses that the pressure members are loaded independently from one another by the pressure force.

Firstly, applicant would like to point out that, according to the present invention, the pressure members 27 are provided in addition to the heating elements 9a of the upper

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clamping unit 9. This is not shown in the cited prior art reference.

Moreover, the diaphragm units 18 of *Cranston*, contrary to examiner's statement, cannot be loaded independently from one another against the sheets 10, 11, 12 to be laminated. In Figs. 3 through 5 of this prior art document, the diaphragm units 18 each have a pressure chamber 42 that is delimited by the diaphragm 41. The different pressure chambers 42, according to col. 4, lines 55ff, are connected to three manifold pipes 50 provided with valves 51 with which compressed air can be supplied from the supply pipes 52. Each valve is actuated by a lever 53, respectively. All levers 53 are connected to a common link 54. The link 54 is pivotably connected to piston rod 55 of the air cylinder 56. As disclosed in col. 4, line 66, to col. 5, line 27, of this prior art reference, compressed air, controlled by the solenoid 63, is supplied to the cylinder 56 and the piston rod 55 that moves the link 54. Since all levers 53 are connected to the link 54, the levers 53 are moved in unison (see col. 4, lines 61-63). This causes all valves 51 to open or close simultaneously. Obviously, the diaphragm units 18 cannot be adjusted independently from one another - all of them are supplied with the same air pressure when the solenoid 63 is activated. An independent adjustment however would be the prerequisite for loading the diaphragm units 18 independently from one another with the pressure force. Instead, all diaphragm units 18 are supplied with the same air pressure as a result of the described configuration.

Accordingly, the feature of claim 61, according to which at least two pressing members are configured to be loaded independently of one another against the board by a pressure force, is not disclosed in this prior art reference. Claims 61 and claim 74 both contain this feature and are therefore not anticipated or obvious in view of this prior art reference.

In this connection, it should also be noted that with the described diaphragm units 18 would not be able to press wooden members 2 to boards 12. The bonding of boards requires very high pressures that cannot be applied by diaphragm units. This is also further evidence that there is no similarity between the laminating machine of *Cranston* and the bonding machine for pieces of wood of the present invention.

Rejection under 35 U.S.C. 103

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Claims 75-79 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over *Cranston Jr., et al.* (US 2,830,631) and *Onsrud* (US 2,593,691).

Claims 75-79 should be allowable as dependent claims of claim 61.

ALLOWABLE SUBJECT MATTER

Claims 81-99 are allowed.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or e-mail from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on January 13, 2004,

Ms. Gudrun E. Hockett, Ph.D.
Patent Agent, Registration No. 35,747
Lönsstr. 53
42289 Wuppertal
GERMANY
Telephone: +49-202-257-0371
Facsimile: +49-202-257-0372
gudrun.draudt@t-online.de

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Encl.: time extension petition (1 sheet)